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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,833	09/08/2000	Timothy Shuttleworth	17900-27	1797

7590 03/11/2005

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EXAMINER

FAULK, DEVONA E

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/657,833

Applicant(s)

SHUTTLEWORTH, TIMOTHY

Examiner

Devona E. Faulk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-38 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 and 36-38 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8, 13, 21, 23, 29, 30, 32 is/are rejected.
- 7) ☒ Claim(s) 3-7, 9-12, 14-20, 24-28, 31 and 33-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 9/23/2004, with respect to the rejection(s) of claim(s) 17 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Rowan.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 8, 20, 29 and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. . Claims 8 and 20 recites that the PWM power amplifier drives a speaker. Claim 30 recites that the PWM power amplifier drives a computer. The examiner did not find in the specification or the figures where the applicant subject matter which applicant regards as the invention

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2,13 and 21,23,32 are rejected under 35 U.S.C. 102(b) as being anticipated by Rowan (U.S. Patent 5,986,426).

Regarding claim 1, Rowan discloses a pulse width modulated power processing device (RWM control circuit, 216, Figure 4b); a digital signal processor having a clock for use in said digital signal processor operational clock frequency (servo DSP (120), Figure 1, Figure 4a; column 5, lines 58-65); wherein said pulse width modulated power processing device is communicatively coupled to said clock within said digital signal processor (Figure 1); wherein said pulse width modulated power processing device uses said clock within said digital signal processor for its operational clock frequencies (column 5, line 58-column 6, line 3).

All elements of claim 2 are comprehended by claim 1 (PWM control circuit reads on PWM power amplifier; column 6, lines 4-20).

All elements of claim 13 are comprehended by claim 1.

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Regarding claim 21, Rowan discloses using a clock within a digital signal processor (servo DSP, Figures 1 and 4a; column 5, line 58-column 6, line 3) to operate the DSP; and using the clock within the DSP to operate a pulse width modulated (PWM) power processing device (PWM control circuit (216, Figure 4b); column 5, lines 58-column 6, line 3).

All elements of claim 23 are comprehended by claim 21 PWM control circuit reads on PWM power amplifier; column 6, lines 4-20).

All elements of claim 32 are comprehended by claim 21.

Claim Objections

6. Claims 3-7, 9-12, 14-16, 24-28, 31, 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons For Allowance

7. Claims 17-19, 36-38 are allowable.

8. The following is an examiner's statement of reasons for allowance: Prior art Smith et al. (U.S. Patent 6,084,450) discloses a switching power amplifier (34) including a switching power supply unit (36) (Figure 14). The remainder of the circuit (except for filter 38) develops clock signals for the switching power supply unit. Prior art Snow et al. (U.S. Patent 4,683,528 discloses a switching mode power

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supply system (10) set by a clock 112. Prior art Furrer (U.S. Patent 4,560,944) discloses a switching amplifier that is controlled and synchronized by a clock generator (5) (column 3, lines 53-60). Prior art Rowan (U.S. Patent 5,986,426) discloses a DSP that supplies a clock signal to a PWM control circuit (216) (column 5, line 59-column 6, line 19). Prior art Adrian et al. (U.S. Patent discloses a switching amplifier including a power supply and a DSP but the clock signal used is external to the DSP and the clock does not control the DSP, the switching amplifier and the power supply as claimed. Although each element of the claim is known separately, the prior art fails to give motivation for combining to have a system for synchronizing as claimed in claims 17 and 36 (See Figure 2).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date

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of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Sinh Tran', with a long horizontal stroke extending to the right.

SINH TRAN
SUPERVISORY PATENT EXAMINER

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